

What is claimed is:

1. A display device comprising:  
a switching regulator control circuit comprising a thin film transistor on a  
5 substrate.
  
2. A display device comprising:  
a switching regulator control circuit comprising a thin film transistor on a  
substrate,  
10 wherein a switching element is driven according to an output signal from said  
switching regulator control circuit to raise or lower the voltage.
  
3. A display device comprising:  
a switching regulator control circuit comprising a thin film transistor on a  
15 substrate;  
a switching element;  
an inductor;  
a diode; and  
a smoothing capacitor,  
20 wherein said switching regulator control circuit comprises:  
a voltage feed back circuit which feeds back a voltage of said smoothing  
capacitor; and  
a duty control circuit which controls a switching duty of said switching element.
  
- 25 4. A display device according to claim 3, wherein said inductor, said diode, and  
said smoothing capacitor are packed on an FPC.
  
5. A display device according to claim 3, wherein said inductor, said diode, and  
said smoothing capacitor are packed on said TFT substrate.  
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6. A display device according to claim 3, wherein said switching element is  
made up of a thin film transistor.
  
7. A display device comprising:  
35 a switching regulator control circuit comprising a thin film transistor on a  
substrate,

wherein said switching regulator control circuit uses an analog signal.

8. A display device according to claim 7, wherein said switching regulator control circuit comprises a reference voltage source, an error amplifier circuit, a triangle wave generation circuit, and a PWM comparator.

9. A display device comprising:

a switching regulator control circuit comprising a thin film transistor on a substrate,

10 wherein said switching regulator control circuit uses a digital signal.

10. A display device according to claim 9, wherein said switching regulator control circuit comprises an AD converter circuit, a nonvolatile memory, a CPU, and a pulse generation circuit.

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11. A display device according to claim 1, wherein a plurality of switching regulator control circuits are formed on the substrate.

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12. A display device according to claim 2, wherein a plurality of switching regulator control circuits are formed on the substrate.

13. A display device according to claim 3, wherein a plurality of switching regulator control circuits are formed on the substrate.

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14. A display device according to claim 7, wherein a plurality of switching regulator control circuits are formed on the substrate.

15. A display device according to claim 9, wherein a plurality of switching regulator control circuits are formed on the substrate.

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16. A display device according to claim 1, wherein said display device is a liquid crystal display device.

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17. A display device according to claim 2, wherein said display device is a liquid crystal display device.

18. A display device according to claim 3, wherein said display device is a liquid crystal display device.
- 5        19. A display device according to claim 7, wherein said display device is a liquid crystal display device.
- 10        20. A display device according to claim 9, wherein said display device is a liquid crystal display device.
- 15        21. A display device according to claim 1, wherein said display device is an EL display device.
22. A display device according to claim 2, wherein said display device is an EL display device.
- 15        23. A display device according to claim 3, wherein said display device is an EL display device.
- 20        24. A display device according to claim 7, wherein said display device is an EL display device.
- 25        25. A display device according to claim 9, wherein said display device is an EL display device.
- 25        26. A display device according to claim 1, wherein the display device is applied to an electronic equipment selected from the group consisting of a digital camera, a notebook type personal computer, a PDA, a DVD player, a folding portable display device, a watch type display device and a mobile telephone.
- 30        27. A display device according to claim 2, wherein the display device is applied to an electronic equipment selected from the group consisting of a digital camera, a notebook type personal computer, a PDA, a DVD player, a folding portable display device, a watch type display device and a mobile telephone.
- 35        28. A display device according to claim 3, wherein the display device is applied to an electronic equipment selected from the group consisting of a digital camera, a

notebook type personal computer, a PDA, a DVD player, a folding portable display device, a watch type display device and a mobile telephone.

29. A display device according to claim 7, wherein the display device is applied  
5 to an electronic equipment selected from the group consisting of a digital camera, a notebook type personal computer, a PDA, a DVD player, a folding portable display device, a watch type display device and a mobile telephone.

30. A display device according to claim 9, wherein the display device is applied  
10 to an electronic equipment selected from the group consisting of a digital camera, a notebook type personal computer, a PDA, a DVD player, a folding portable display device, a watch type display device and a mobile telephone.

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